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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,744	07/15/2003	Erica Lin	6233.350	6922

7590 02/22/2006

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EXAMINER

SACKEY, EBENEZER O

ART UNIT	PAPER NUMBER
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1626

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/618,744	<b>Applicant(s)</b> LIN ET AL.	
	<b>Examiner</b> EBENEZER SACKY	<b>Art Unit</b> 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 19 is/are allowed.
- 6) ☒ Claim(s) 2, 3 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### Status of Claims

This is in response to applicant's amendment filed 11/21/05.

Claims 1 and 4-18 have been cancelled.

Claims 2- and 19-20 are pending.

The indicated allowability of claims 2-3 and 19-20 is withdrawn in view of the reference(s) to JP5-222256. Rejections based on cited reference(s) follow.

### Claim Rejections - 35 USC § 102

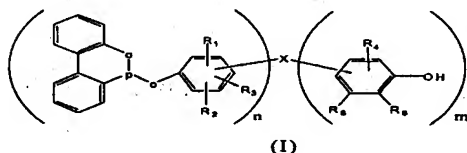
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 5-222256.

Applicants claim compounds of structural formula (I), wherein the substituents are as defined in claim 2.



JP5-222256 discloses an identical compound. See page 3; compound number 2 between lines 0012 and 0013. See where each of R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> and R<sub>6</sub> are *t*-C<sub>4</sub>H<sub>9</sub>.

### **Claim Rejections - 35 U.S.C. § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 3 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP5-222256 ('256').

Applicants claim phenolic group-containing phosphonite compounds of formula (I), wherein the substituents are as defined.

**Determination of the scope and content of the prior art (MPEP §2141.01)**

JP5-222256 discloses compounds, which are similar to the instantly claimed compounds. See the entire reference, for example compound 12, page 3, wherein for example X is CH<sub>2</sub>; R<sub>1</sub> is H, each of R<sub>2</sub>, R<sub>3</sub> is *t*-butyl, R<sub>5</sub> is H and each of R<sub>4</sub> and R<sub>6</sub> is also *t*-butyl.

**Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)**

The instant compounds differ from the reference in the various substitutions on the phosphonite ring system. See for example the definitions given above. The reference also differs from instant claims 3 and 20 in that in the claims "X" is drawn to a propylmethylene group whereas in JP '256', the corresponding X is a methylene group. These are related as homologs.

**Finding of prima facie obviousness---rational and motivation (MPEP §2142-2143)**

One of ordinary skill in the art at the time of this invention would have found the instant compounds obvious over the reference since the reference discloses a species embraced by instant compounds. See *In re Wood*, 199 USPQ 137-142. Accordingly, one of ordinary skill in the art would thus have been motivated to prepare compounds embraced by the disclosed reference with the expectation of obtaining additional compounds for use as a stable rubber-reinforced styrenic resin composition. Furthermore, the motivation to prepare these compounds is their close structural similarities to the disclosed compounds of the reference, i.e., the alkyl homologs as noted above. Thus, the skilled artisan would expect the close structural similarities of the compounds to possess similar properties. While homology is considered to be present even if true homology is not present, such does not defeat the prima facie case of obviousness raised by the art. See *In re Druey et al.*, 50 CCPA 1538, 319 F.2d 237, 138 USPQ 39, wherein Judge Worley, delivering the Court's opinion, stated:

"We need not decide here whether the compounds in question are properly labeled homologues. It appears to us from the authorities cited by the solicitor and appellants that the term homologue is used by chemists at times in a broad sense, and at other times in a narrow or strict sense. The name used to designate the relationship between the related compound is not necessarily controlling; it is the closeness of that relationship which is indicative of the obviousness or unobviousness of the new compound".

Moreover, the motivation as to why one of ordinary skill would conceive and use similar compounds was rendered by the Court which stated in *In re Gyurik et al.*, 596 F.2d 1012, 201 USPQ 552 at 557 that:

"In obviousness rejections based in close similarity in chemical structure, the necessary motivation to make a claimed compound, and thus the prima facie case of obviousness rises from the expectation that compounds similar in structure will have similar properties". Thus, the instantly claimed compounds would have been suggested to one of ordinary skill in the art.

***Allowable Subject Matter***

Claim 19 is allowed over the prior art of record, which is JP5-222256.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Sackey whose telephone number is (571) 272-0704. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm.

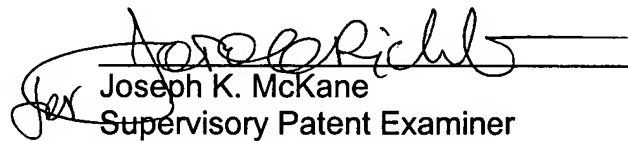
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane, can be reached on (571) 272-0699. The fax phone

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number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

EOS  
February 20, 2006

  
Joseph K. McKane  
Supervisory Patent Examiner  
Art Unit 1626, Group 1600  
Technology Center 1